

**St John of God Sefwi - Asafo, Pramso St Michael's - & Nkawkaw
Holy Family Hospital's Laboratory**

Report by Raymond Ofori October 2007

Motec team of 3 namely, Raymond Ofori - Biomedical Scientist, Mr and Mrs Ofori-Atta - Orthopaedic Surgeon and President, and Nurse, Operating Department Anaesthetic Practitioner, visited the St John of God Hospital at Sefwi Asafo in October 2007. The team were collected from Accra by the St John of God Hospital's driver and headed to Koforidua where the hospital Administrator designate. Rev. Bro Johannes Torwoe joined us on our long journey to the Western Region. After a brief stop over at Nkawkaw Holy Family Hospital and in Kumasi for dinner, we set off to our designation. Contrary to what we have been told previously about the bad state of the roads to Asafo, to our surprise, the road was in excellent condition. So smooth was the journey that some members could sleep through most of the journey. The scenery of green vegetation could not be admired until our return journey, as the journey was made at night. We arrive at Asafo around 10.30 pm, had light refreshment and headed to bed at a hostel within the brothers premises.

We met with the hospital administrator and his management team in the morning. After a short introduction, our leader, Mr Paul Ofori-Atta briefed them about our mission, i.e. to assess the hospital for a possible Motec life future visit, working with them in the area where our resources would allow and transferring of skills. The administrator and his team responded by highlighting the job of the church in their attempt to bringing health to the people of the rural region of the country. (See detailed separate report compiled by Mr Ofori-Atta under **The Unsung Gentle Green Giant St. John of God Hospital -The Sefwi-Asafo Story**). We spent all day with the administrator and his team who oriented us around all the various departments in the hospital including an impressive rehabilitation centre for malnourished children. I spend the rest of the morning in the laboratory department.

Asafo laboratory is well organised and the department offers haematology, clinical chemistry and blood transfusion services. The laboratory is equipped with Portable Sysmex - KX21 - N Haematology analyser and a semi-automate Biochemistry analyser and a single cell Spectrophotometer. Haematological tests offered include haemoglobin and indices, differential count, and ESR. For chemistry, blood glucose, creatinine total protein and bilirubin liver function and kidney function tests are measured. There is a large amount of microscopy work involving the examination of slides for malaria, and of stools and urine for ova, cysts and parasites. Nematodes are the most common finding, especially *Ascaris lumbricoides* and *Stongyloides stercoralis*. As with most of the laboratories I have visited, microscopic slides are washed and reused until they are so scratched they cannot be used anymore.

The transfusion section is very busy, as patients are required to encourage relatives or friends to donate blood prior to any surgery. All donated blood is screened for HIV, Syphilis (rapid plasma reagin). Hepatitis B and Hepatitis C. The laboratory staff and Asafo management were praised for having counselling sections for potential blood donors before blood is collected. If any screening test becomes positive, donors were referred to a public health nurse for further counselling and more investigation. There was documentation showing daily monitoring of temperatures for their portable blood bank - very good practice.

There were no facilities for microbiological culture of specimens. However, the main area of work is screening sputum for the presence of acid-fast bacilli to aid in the diagnosis of tuberculosis. This is an area that I found very worrying, as health and safety issues are not always followed.

The Hospital has an isolation ward for TB patients but was discontinued due to Ghana Ministry of Health directive for encouraging the treatment open TB cases at home!

On the whole, the trip was very successful. The brothers of St John and the hospital staff were very friendly and wished we could stay much longer. Recommendations

- 1.The laboratory needs a biological safety cabinet to be used for the processing of samples from the lower respiratory tract. This will prevent lab staff exposing themselves to open TB sputum on the bench.
- 2.The lab could benefit from a carbon dioxide bacteriological incubator to assist them in their future plans to open culture facilities.
- 3.Bacteriological slides which are currently washed and re-use could be stopped if large and regular supply of slides could be sourced and provided.
- 4.There is the need to write standard operation procedures (SOP) for all the procedures used for performing of tests so that everyone could follow the same method.
- 5.Meet with appropriate personnel at Ministry of Health to discuss TB treatment policy

Pramso St Michaels Hospital.

The team of three arrived at St Michael's hospital at Gyekyi Pramso on the evening of 22 October to team up with Mr Simon Derby, Nurse Anaesthetics and Mr Caesar Mensah, Infection Control nurse for our educational lecture. Mr Raymond Ofori presented the topic, Tuberculosis a Global Challenge to the staff. Despite the short notice, attendance was very encouraging. The whole team had a guided tour of the theatre and laboratory. Like Asafo hospital, the laboratory has semi automated haematology and chemistry analysers. The tests offers are the same as for Sefwi Asafo laboratory but do not have bacteriological culture facilities. We also found that like Asafo, blood donors were offered counselling before they donate. A good practiced which was very encouraging to hear existed at these 2 hospitals.

Recommendations for St Michael's laboratory are the same as stated above for Asafo Hospital.

Nkawkaw Holy Family Hospital

I joined the 5-man Motec team based at Nkawkaw (see Nkawkaw report by Veronica MacQuarshie) on 22nd October. The hospital has 180 beds and has the added advantage of a Nurses Training College on site. The laboratory is well equipped with semi automated chemistry and haematology analysers, and it is the only lab of the Motec-targeted hospitals that have some form of culture facilities. The lab performs culture and susceptibility tests on a whole range of clinical samples including blood cultures. My week was spent teaching the technician in charge of the microbiology section good laboratory practices, culture and identification techniques, storage of organisms for future investigations and safe practices.

Educational Lectures

The team conducted afternoon lecture section at the auditorium of the nurses training college between 3- 4.30 pm. These were well attended by both students and hospital staff very afternoon. Topics covered included the following.

DATE	TOPIC	LECTURER
17/10/07	Infection Control	Mr Caesar Mensah
18/10/07	The Effects Of Hypothermia In Patients Undergoing Major Surgery	Mrs Veronica Mac-Quarshie
19/10/07	Airway Management	Mr Isaac Amo Dadzie
22/10/07	Caesarean Section	Dr Wilbert Spaans
23/10/07	Pain Management	Dr Saed Nadeem
24/10/07	Nosocomial Infections	MR Raymond Ofori
25/10/07	Open Forum	Team (led by Mr Raymond Ofori)

A request by the hospital pharmacist, Sr Brenda to meet me for discussion about their drug and antibiotic policy was very fruitful. Reform in the use of antibiotics in the hospital was discussed.

Recommendations

- Same as above including introduce counselling section for blood donors.
- Large incubators to accommodate more culture plates
- Reasonable size autoclave to be able to sterile culture plates. Glass Petri dishes are washed for re-use.
- Regular supply of antibiotic discs, reagents and media powder
- Bacteriological safety cabinet required for all the targeted hospitals